



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW307A BYPASS RATIO: 4.2
 UNIQUE ID NUMBER: 11PW100 PRESSURE RATIO (π_{00}): 20.2
 COMBUSTOR: TALON II
 ENGINE TYPE: TF RATED THRUST (F_{00}) (kN): 28.5

REGULATORY DATA **** DATA SUPERSEDED **** SEE FOLLOWING UID FOR REVISED DATA: **16PW114**

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	9.2	109.1	38.9	1.8
AS % OF ORIGINAL LIMIT	46.9	92.5	48.4	5.4
AS % OF CAEP/2 LIMIT (NO _x)			60.5	
AS % OF CAEP/4 LIMIT (NO _x)			60.8	
AS % OF CAEP/6 LIMIT (NO _x)			60.9	
AS % OF CAEP/8 LIMIT (NO _x)			64.4	

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 x REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 - OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.329	0.00	0.57	15.82	0.4
CLIMB OUT	85	2.2	0.274	0.00	0.72	13.67	0.3
APPROACH	30	4.0	0.102	0.00	3.37	6.78	0.0
IDLE	7	26.0	0.045	3.24	39.60	2.39	1.6
LTO TOTAL FUEL (kg) or EMISSIONS (g)			144	226	2878	1045	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				7.9	100.9	36.7	1.6
SIGMA (D _p /F ₀₀ in g/kN, or SN)				0.9	1.5	1.1	0.6
RANGE (D _p /F ₀₀ in g/kN, or SN)				6.8-9.1	99.4-102.9	35.5-38.1	1.1-2.5

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	99.2-100.2
TEMPERATURE (K)	292-297
ABS HUMIDITY (kg/kg)	0.0078-0.012

FUEL

SPEC	Jet A-1
H/C	186-1.88
AROM (%)	19-21.9

MANUFACTURER: Pratt & Whitney Canada
 TEST ORGANIZATION: PW307 Development Engineering
 TEST LOCATION: Mississauga, Ontario, Canada
 TEST DATES: 07/08/2007-02/10/2007

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
x	2.3.2 d) (CAEP/6)
	2.3.2 e) (CAEP/8)

REMARKS

- P&W ER 5606 revision AEngines tested: E9819/09, CH0004/13, CH0004/14
- Weight reduced fuel nozzles and CCOCEngines CH499 onwards incorporate this combustion system and design standard
- Defined by P&W Engineering Change D5216
- Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
- NO_x levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

Compliance with Fuel Venting requirements: x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)